H1131

0054351

Recra LabNet - Lionville Laboratory PCB ANALYTICAL DATA PACKAGE FOR TNUHANFORD B99-041 H1131

DATE RECEIVED: 11/08/00 RFW LOT # :0011L188

| CLIENT ID | RFW # | MTX PREP # | COLLECTION | EXTR/PREP | ANALYSIS |
|-----------|---------|------------|------------|-----------|----------|
| | | <u>.</u> | | | |
| B10NT4 | 001 | S 00LE145 | 8 11/06/00 | 11/09/00 | 11/29/00 |
| B10NT4 | 001 MS | S 00LE145 | 8 11/06/00 | 11/09/00 | 11/29/00 |
| B10NT4 | 001 MSD | S 00LE145 | 8 11/06/00 | 11/09/00 | 11/29/00 |
| B10NT5 | 002 | S 00LE145 | 8 11/06/00 | 11/09/00 | 11/29/00 |
| B10NT6 | 003 | S 00LE145 | 8 11/06/00 | 11/09/00 | 11/29/00 |
| B10NT7 | 004 | S 00LE145 | 11/06/00 | 11/09/00 | 11/29/00 |
| LAB QC: | | | | | |
| | | | | | |
| PBLKHP | MB1 | S 00LE145 | 58 N/A | 11/09/00 | 11/29/00 |
| PBLKHP | MB1 BS | S 00LE145 | 58 N/A | 11/09/00 | 11/29/00 |

al More



EDMC

001



Chemical and Environmental Measurement Information

Recra LabNet Philadelphia Analytical Report

Client: TNU HANFORD B99-041

RFW#: 0011L188

SDG/SAF#: H1131/B99-041

W.O.#: 10985-001-001-9999-00

Date Received: 11-08-00

PCB

The set of samples consisted of four (4) soil samples collected on 11-06-00.

The samples and their associated QC samples were extracted on 11-09-00 and analyzed according to Recra OPs based on SW846, 3rd Edition procedures on 11-29-00. The extraction procedure was based on method 3540 and the extracts were analyzed based on method 8082 for Aroclors only.

The following is a summary of the QC results accompanying the sample results and a description of any problems encountered during their analyses:

- 1. The cooler temperature has been recorded on the chain-of-custody.
- 2. All required holding times for extraction and analysis have been met.
- 3. The samples and their associated QC samples received a sulfuric acid and a sulfur cleanup.
- 4. The method blank was below the reporting limits for all target compounds.
- 5. Two (2) of sixteen (16) surrogate recoveries were outside acceptance criteria. A copy of the Sample Discrepancy Report (SDR) has been enclosed.
- 6. All blank spike recoveries were outside acceptance criteria. A copy of the SDR has been enclosed.
- 7. Matrix spike recoveries were unobtainable due to the high concentration of analytes.
- 8. All initial calibrations associated with this data set were within acceptance criteria.
- 9. All continuing calibration standards analyzed prior to sample extracts were within acceptance criteria.
- 10. The samples could not be concentrated to the method specified final volume of 10 mLs. A final volume of 23 mLs was used.

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 15 pages.

11. I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this hard-copy data package has been authorized by the laboratory Manager or a designee, as verified by the following signature.

J. Michael Taylor

Vice President

Philadelphia Analytical Laboratory

pef\r:\group\data\pest\10L-853.pcb

12-11-00

Date



| RECR | A Sample Discrepancy Report (SDR) SDR#:006c30 |
|----------------------|--|
| Date: | M. Rob Batch: OUIL 188 Parameter: OPCB 11/29/00 Samples: 003, blank Matrix: Soil |
| Client: | TNU Method: SWB46MCAWW/CLP/ Prep Batch: OOLE 1958 |
| | n for SDR Discrepancy Tech Profile Error Client Request Sampler Error on C-O-C Transcription Error Wrong Test Code Other |
| Miss Hold | ral Discrepancy sing Sample/Extract Container Broken Wrong Sample Pulled Label ID's Illegit I Time Exceeded Insufficient Sample Preservation Wrong Received Past Froper Bottle Type Not Amenable to Analysis |
| | rified by [Log-In] or [Prep Group] (circle)signature/date: |
| c. QC Pi Dhish Si | roblem (Include all relevant specific results; attach data if necessary) urrogates in sample 003; TCX@14L% and DCB@154% |
| 2) AR124 | 12 present in blank @ 68 48/kg |
| | or Probable Causes(s) (To be used for trend analysis) |
| | Lack of Organization Other (Please explain): Lack of Training Lack of Discipline # high surregates in sample due to 20-fild |
| | Lack of Resources dilation Lack of Time # Lock of Time Allow to Long the from another sample wh |
| | Lack of Management Support Was prepared in Same prepared. Ssion and Proposed Action Other Description: |
| Re-le | og intire Batch + samples contain AR1260 not AR1242. |
| Re-e | each extract ligest |
| Revi | ise EDD nge Test Code to e On/Take Off Hold (circle) |
| | t Manager Instructionssignature/date: |
| Disa Incl | agree with Proposed Action; See Instruction ude in Case Narrative ent Contacted: |
| | e/Person |
| yerit | Actionsignsture/date: MTL Kolz Other Explanation: fied re-[log][leach][extract][digest][analysis] (circle) uded in Case Narrative |
| Hard Elec | Copy COC Revised tronic COC Revised Corrections Completed |
| When Fir | nal Action has been recorded, forward original to QA for distribution and filing. |
| | stribution of SDR Route Distribution of <u>Completed</u> SDR Metals: Doughty ab Manager: M. Taylor Inorganic: Perrone |
| 🗹 P | Project Mgr. Stone/Carey/Johnson GC/LC: Pastor Section Mgr. Wesson/Daniels MS: Layman/Rycklak |
| <u> </u> | AA (file): Schrenkel Log-in: Keppel Data Management: Feldman Admin: Soos |
|] — 🗧 | Sample Prep: Bickel/Kauffman Other: |

| RECRA Sample Discrepancy Report (SDR) SDR #:c | DEXIT! |
|---|----------|
| Initiator: | <u> </u> |
| Hold Time Exceeded Insufficient Sample Preservation Wrong Received Improper Bottle Type Not Amenable to Analysis Note: Verified by [Log-In] or [Prep Group] (circle)signature/date: c. QC Problem (Include all relevant specific results; attach data if necessary) Somption FU after blow Lown/bil Lown = 23 mL (prints to | |
| 2. Known or Probable Causes(s) (To be used for trend analysis) Lack of Organization Lack of Training Lack of Discipline Lack of Resources Lack of Time Lack of Management Support | |
| 3. Discussion and Proposed Action Re-log Entire Batch Following Samples: Re-leach Re-extract Re-digest Revise EDD Change Test Code to Place On/Take Off Hold (circle) | |
| 4. Project Manager Instructionssignature/date; Concur with Proposed Action; Disagree with Proposed Action; See Instruction Include in Case Narrative Client Contacted: Date/Person Add Cancel | |
| 5. Final Actionsignature/date: | |
| Route/Distribution of SDR Initiator Lab Manager: M. Taylor Project Mgr: Stone/Carey Johnson Section Mgr: Wesson/Daniels X QA (file): Schrenkel Data Management: Feldman Sample Prep: Bickel/Kauffman Route Distribution of Completed SDR Metals: Doughty Inorganic: Perrone GC/LC: Pastor MS: Layman/Rycklak Log-in: Keppel Admin: Soos Other: | 605 |

Recra LabNet Philadelphia

GLOSSARY OF PESTICIDE/PCB DATA

DATA QUALIFIERS

- U = Indicates that the compound was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).
- J = Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.
- B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.
- E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
- I = Interference.

ABBREVIATIONS

- BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.
- BSD = Indicates blank spike duplicate.
- MS = Indicates matrix spike.
- MSD = Indicates matrix spike duplicate.
- **DL** = Indicates that recoveries were not obtained because the extract had to be diluted for analysis.
- NA = Not Applicable.
- **DF** = Dilution Factor.
- NR = Not Required.
- SP = Indicates Spiked Compound.



Recra LabNet Philadelphia

GLOSSARY OF PESTICIDE/PCB DATA

- P = This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".
- D = This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- C = This flag applies to a compound that has been confirmed by GC/MS.

RFW #21-21-035/A-03/97



Recra LabNet - Lionville Laboratory

PCBs by GC Report Date: 12/01/00 11:25

RFW Batch Number: 0011L188 Client: TNUHANFORD B99-041 H1131 Work Order: 10985001001 Page: 1

| | Cust ID: | B10NT4 | Ŀ | B10NT4 | ŀ | B10NT4 | i | B10NT5 | , | B10NT6 | | B10NT7 | - 00 - C |
|--------------|---|--------|--------|--------------------|--------|----------|-------|-------------------|--------|--------|-------|--------|-------------|
| Sample | RFW#: | 001 | L | 001 MS | 3 | 001 MSD | • | 002 | ! | 003 | | 004 | - |
| Information | Matrix: | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | D.F.: | 2.0 | 00 | 2.0 | 00 | 2.0 | 10 | 1.0 | 0 | 20. | 0 | 1.0 | |
| | Units: | UG/F | ΚG | UG/I | ζG | UG/K | Œ | UG/F | (G | UG/K | G | UG/K | .G |
| Surrogate: | Tetrachloro-m-xylene | 98 | * | 104 | * | 98 | ¥ | 92 | ક | 142 * | 8 | 92 | * |
| | Decachlorobiphenyl | 92 | ¥ | 97 | * | 90 | * | 83 | ¥ | 154 * | ક | 90 | ૪ |
| ************ | ======================================= | | ==fl== | ==== == === | ==fl=: | ======== | =fl== | === == === | ==fl== | | =fl== | | =f1 |
| Aroclor-1016 | | 160 | Ū | 160 | U | 160 | U | 78 | Ū | 680 | U | 78 | U |
| Aroclor-1221 | | 310 | Ŭ | 310 | U | 310 | U | 160 | U | 1400 | U | 160 | U |
| Aroclor-1232 | | 160 | U | 160 | Ū | 160 | U | 78 | U | 680 | U | 78 | U |
| Aroclor-1242 | | 160 | U | 160 | Ū | 160 | U | 78 | U | 680 | U | 78 | U |
| Aroclor-1248 | | 160 | U | 160 | U | 160 | U | 78 | U | 680 | U | 78 | U |
| Aroclor-1254 | · | 160 | U | D | * | D | 8 | 78 | U | 680 | U | 78 | U |
| Aroclor-1260 | | 560 | | 610 | | 440 | | 95 | | 2000 | | 78 | U |

| | Cust ID: | PBLKHP | | PBLKHP BS | | |
|--------------|----------------------|------------|------------|----------------------------|------|---|
| Sample | RFW#: | 00LE1458-I | œ 1 | 00LR1458-I | MB1 | |
| Information | Matrix: | SOIL | | SOIL | | |
| | D.F.: | 1.0 | 00 | 1.0 | 00 | |
| | Units: | UG/1 | ζG | UG/1 | KG | |
| Surrogate: | Tetrachloro-m-xylene | 100 | 8 | 105 | * | |
| • | Decachlorobiphenyl | 92 | ¥ | 99 | ¥ | |
| *** | | ********* | ==fl | _=== = = = = | ==f] | =======f1=====f1=====f1=====f1=====f1====== |
| Aroclor-1016 | 5 | _ 33 | U | 33 | U | |
| Aroclor-1221 | | 67 | U | 67 | U | |
| Aroclor-1232 | | 33 | U | 33 | U | |
| Aroclor-1242 | 2 | 68 | | 33 | Ų | |
| Aroclor-1248 | 3 | 33 | U | 33 | U | |
| Aroclor-1254 | | 33 | U | 83 | * | an was |
| Aroclor-1260 |) | 33 | U | 33 | U | ייי פרייע. |

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked. %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

| OOIILI | | e Only Cust | tody Trai FIELD PERSON | nsfe NEL: (| er I comp | Rece | Or(ONL | d/l .y s | Lab \ | No are/ | rk \s | ^ | equ | es | t Pa | ige ! | of | 1 | | R | | RE Lat | CR/ oNet |
|--|-----------|------------------------|---------------------------|----------------|--------------|--------------|------------|--------------|---------------------------------------|------------|----------|--------------|------------|--------------|--------------------|-------|-----------------------------|--|---|------------------|--|--------------------------------|--|
| | | | | • | | Refrige | | | · · · · · · · · · · · · · · · · · · · | | | <i>H</i> _5 | | | 1 | 1 | | | | | | 6 | 1 |
| 1 | | WFord B99 | -041 | | | remge | HEIOT | | Liquid | | | 2 | | | | | | | | | | (a) | |
| Est. Final Pro | J. Samp | oling Date | 00.00 | | | #/Type | Conta | einer | Solid | | | MG | | | | | | | | - | | | |
| | | 2.001-001-99 | 99100 | | | <u></u> | | | Liquid | | | 71 | | | 1 | | | | | | | | |
| Project Conta | | | | | | Volume | • | | Solid | | | 4 | | | | | | | | | | | |
| RECRA Project | | Del Std TAT | 15 004 | | | Presen | vative | 8 | 1 | | | | | | | | | | | | | | |
| <u>uc sta c</u> | <u></u> | Del Julia in | 13 (1) | | | ANALY | eee | | | | | ANIC | | | | ŀ | INO | | | | | į. | |
| Date Rec'd | 71.8 | OO Date D | TK IF 8-00 | 100L | <u>}</u> | REQUE | | , — | | δ Š | BNA | Pest/ PCB | E E | | | | Metal | 8 | | | | | |
| | | | | Ma | ntrix | |] | | | | | | 1 | | REC | RA La | bNet | Use (| Only | | 1 | | |
| MATRIX CODES: \$ - Soil SE - Sediment | Lab ID | Client iD/De | escription | Ch | OSEN (V) | Matrix | | ate ected | Time Collected | | | FFB. | | | | | | i | | | | | |
| SO - Solid SL - Sludge | | | | MS | MSD | <u> </u> | <u> </u> | | | | | 72 | | | | | | | | _ | | | |
| W - Water 0 - Oil | 001 | BIONT4 | | | . | _ک | 14/2 | 100 | 1316 | | | 1 | | | | | | | | | | - - | |
| A - Air DS - Drum | 002 | 5 | | 1_ | | | <u> </u> | 1_ | 1310 | | | 1 | | | | | | | | | | | ┷ |
| | an3 | 16 | | | <u> </u> | Ш_ | Ш | L | 1321 | | | | | | ļ | | | | | | | | |
| | æ4 | 1 7 | | | <u> </u> | 1 | 1 | ! | 1325 | | | | | | | | | | | | | | |
| Leachate WI - Wipe | | | | | | | | | | | | | | | | | | | | | | | |
| X - Other F - Fish | _ | | | | 1 | <u> </u> | <u> </u> | | <u> </u> | | | | | | | | | | | | | | |
| F - Flair | | | | | | | | | | | | <u></u> | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | |] | |
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| Special Instruct | lons: (| M3668 305 | | | DATE | REVISIO | NS: | | | | | | | | | | | | REC | RA Labi | let Use (| Only | |
| Run | | Sas Baacu Jatrix QC | | | | | 2 | | | <u>-</u> | — | | | | | | Airt 2) / 3) I Cor | nd Deli Dill / Ambien Receive | vered vered at or of or | 20/ pood N | 1) Pre Packa 2) Uni Packa 3) Pre 4) Uni | oroken or | Outer or N Outer or N Sample or N |
| Relinquished | | Received Date | Time F | lelinqui by | shed | | 6 | | | ate | Tin | 10 | | | es Belw bels an | | Pro | perly F | Indicate Preserve O or ed With | ed N | Samp COC I | e 🗘 or Record P Sample F | resent Rec'l |
| EU Ep | 14 | 01 11 11 | 0 093 48 20 | COM | POS AST | | | <u></u> | ORIG | - 11 4. | | | COC NOT | Pecon ES: | Delis and del Y o | D | Hol | Iding Ti | | | Coole Temp | | ·C |

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| Bechtel Hanford | Inc. | CI | HAIN OF CUST | ODY/S | SAMP | LE A | NAL | YSIS | RE | QUES | Γ | | B99 | -041-320 | Page 1 | of <u>1</u> |
|---|----------------|-------------|---------------------------------------|---------------------|--------------|--------------|----------|-------|-------------|--------------------------|------------------|-----|----------|-----------|----------|--|
| Collector R. Nielson R. THO | REN | Comp | any Contact e Stankovich | Telepho 531-7 | ne No. | | | | Proje | ect Coord NT, SJ | | Pri | ce Code | JE | | rnaround |
| Project Designation 100 H Area - Quick Turn | | | ing Location -11-7 | | | | | | SAF B99- | | | Air | Quality | | 15 days | |
| Ice Chest No. IP6 [1 | AZ LIC | Field I | Logbook No. 1500-3 | | COA R1161 | \ 1172600 | | | Meth Fe | od of Ship deral Expi | oment ess | | | | | 0 |
| Shipped To- TMA RECRA | | Offsite | Property No. | NSR | , 0 | \$ | 904 | 1 | Bill | of Lading | /Air Bill N A | No. | .* ± | . | 1 | ම L |
| POSSIBLE SAMPLE HAZARD | S/REMARKS | | Preservation | Cool 4C | | | | | | | | ł | | | | : |
| PCB | | | Type of Container | aG | | | : | | \neg | | 1 | | | | | |
| | | | No. of Container(s) | 1 | | | | | | | | | | | | |
| Special Handling and/or Storage PCB shipment | : | | Volume | 60mL | | | | | | | | | | | | |
| | | | <u> </u> | PCBs - 8082 | | | | | | | | | | | | |
| 8 | SAMPLE ANALY | SIS | | | | | | | | | | | | | | : |
| | | | | | | | | | | • | | | | TIC | το | |
| Sample No. | Matrix * | Sample Date | Sample Time | | | | | | . [] | 45. 14 s | | : | .c. : [] | | | |
| B10NT4 | SOIL | 11-6-00 | 1316 | X | | | | | | | | | | BID | 326 | |
| B10NT5 | SOIL | 11-6-00 | 1310 | X | | | | | | | <u> </u> | _ | | | | |
| B10NT6 | SOIL | 11-6-00 |) 1321 | X | | | | | | | | | | | | |
| B10NT7 | SOIL | 11-6-00 | 1325 | X | | | | | | | <u> </u> | _ | | | | ļ <u> </u> |
| CHAIN OF POSSESSION | | Sign/Prin | t Names | | | EDECIA | L INSTR | UCTIO | NIC | | | į | | | | Matrix * |
| Relinquished By R. Thore | Date/Time O8ZO | Received By | Da | te/Time | ─ ┤° | SPECIA | II INSTR | ocne |)113 | | | | | | | S=Soit |
| tk. I V | Date Time | FED | ex . | te/Time | | | _ | | | A 11 | . 1 | | _ | ١. | | SE=Sediment SO=Solid |
| Relinquished Bas | 1/8/00 1015 | Received | | | ا سح | | ORI | gin | W | ركواا | الملاح | 21 | - NB. | ۲ | | S ≜Shidge W ≠ Water O=Oil |
| Relinquished By | Date/Time | Received By | V Da | 100 101: ne/Time | | | aud | illa | rp | (ح - | 40 | 1 | eling | uish | | A=Air DS=Drum Solids |
| Relinquished By | Date/Fime | Received By | Da | te/Time | \dashv | | SA | mp | les | ۵. | | | | t uish | | DL=Drum Liquids T=Tissue W1=Wipe L=Liquid |
| Relinquished By | Date/Time | Received By | Da | te/Time | | | | | | | | | | | | V=Vegetation X=Other |
| Relinquished By | Date/Time | Received By | Da | ste/Time | | | | | | | | | | | | |
| LABORATORY Received By SECTION | | | | Ti | ile | | | | - | | | | | D | ate/Time | |
| FINAL SAMPLE Disposal Method DISPOSITION | <u> </u> | | · · · · · · · · · · · · · · · · · · · | | | | Dispos | ed By | | | | | | D | ate/Time | |

BHI-EE-011 (10/99)

10 Ches

Figure 1. Sample Check-in List

| Date/1 | ime Received: ///8/00 /0:15 | |
|-------------|--|---------------------------------------|
| SDG# | : 0011 L188 | - |
| Work | Order Number: | SAF#_B99-04(|
| Shippi | ng Container ID: | Chain of Custody # <u>B99-041-320</u> |
| 1. | Custody Seals on shipping container intact? | Yes [X No [] |
| 2. | Custody Seals dated and signed? | Yes [] No [] |
| 3. | Chain-of-Custody record present? | Yes [] No [] |
| 4. | Cooler temperature | |
| 5. | Vermiculite/packing materials is | Wet [] Dry [] |
| 6. | Number of samples in shipping container: | |
| 7. | Sample holding times exceeded? | Yes [] No [A |
| 9. | Samples are: | ppropriate sample labels |
| | | have air bubbles |
| 10. 11. | Were any anomalies identified in sample reconnection of anomalies (include sample nu | eipt? Yes [] No [2] mbers): |
| | (Fresh | |
| | ole Custodian/Laboratory: Vector Henro | |
| Tele | phoned to:O | nBy |

B10326

gran to s

DATA SHEET

| 7470 Melissa C. Mannion | Client/Case no Contract | Hanford TRC-SBB-207925 | SDG_H0990 |
|----------------------------|----------------------------|--|-----------|
| | | 100-H-7 Shallow Zone 08/24/00 11:00 | |

| ANALYTE | CAS NO | RESULT pCi/g | 2σ ERR (COUNT) | MDA pCi/g | RDL pCi/g | QUALI- FIERS | TEST |
|-------------------|------------|-----------------|-------------------|--------------|--------------|-----------------|------|
| Nickel 63 | 13981-37-8 | -0.450 | 1.8 | 3.0 | 30 | U | NI_L |
| Total Strontium | SR-RAD | -0.021 | 0.11 | 0.16 | 1.0 | U | SR |
| Technetium 99 | 14133-76-7 | -0.146 | 0.22 | 0.68 | 20 | ซ | TC |
| Uranium 233 | U-233/234 | 0.561 | 0.20 | 0.12 | 1.0 | J | U |
| Uranium 235 | 15117-96-1 | 0.097 | 0.078 | 0.15 | 1.0 | U | ט |
| Uranium 238 | U-238 | 0.465 | 0.20 | 0.12 | 1.0 | J | U |
| Plutonium 238 | 13981-16-3 | -0.003 | 0.018 | 0.038 | 1.0 | ט | PU |
| Plutonium 239/240 | PU-239/240 | -6.15 | 6.2 | 0.030 | 1.0 | ប | ΡÜ |
| Potassium 40 | 13966-00-2 | 13.2 | 0.57 | 0.21 | | | GAM |
| Cobalt 60 | 10198-40-0 | U | | 0.023 | 0.050 | U | GAM |
| Cesium 137 | 10045-97-3 | 0.052 | 0.022 | 0.026 | 0.10 | J | GAM |
| Radium 226 | 13982-63-3 | 0.491 | 0.053 | 0.050 | 0.10 | | GAM |
| Radium 228 | 15262-20-1 | 0.617 | 0.12 | 0.13 | 0.20 | | GAM |
| Europium 152 | 14683-23-9 | Ū | | 0.063 | 0.10 | ט | GAM |
| Europium 154 | 15585-10-1 | U | | 0.093 | 0.10 | บ | GAM |
| Europium 155 | 14391-16-3 | U | | 0.066 | 0.10 | ט | GAM |
| Thorium 228 | 14274-82-9 | 0.584 | 0.032 | 0.030 | | | GAM |
| Thorium 232 | TH-232 | 0.617 | 0.12 | 0.13 | | | GAM |
| Uranium 235 | 15117-96-1 | U | | 0.10 | | Ŭ | GAM |
| Uranium 238 | U-238 | U | | 3.0 | | U | GAM |
| Americium 241 | 14596-10-2 | U | | 0.092 | | บ | GAM |

100 H Area - Full Protocol

456-1-4

TIR TO: BIONTY thru BIONTZ

DATA SHEETS
Page 8
SUMMARY DATA SECTION
Page 19

Lab id TMANC
Protocol Hanford
Version Ver 1.0
Form DVD-DS
Version 3.06
Report date 09/29/00

| COLX Dungero | | us R | ecipien | t's Copy | 1 , | | | |
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| Sender s FedEx Account Numb | | | | 影響 | | | | |
| G.O. BONESS HASTE MANAGEMENT T | ECHN I CAI | | _{hone} <u>() да</u> CES/II : | · | 7 & Q 3 | 330 | 50811 | 3 4 mar 1811 b all a 18 1 l a |
| pany | | | | | | Questions? Call 1-86 | 00•Go•FedEx (| 1-800-463-3339) |
| ress 2355 STEVENS DP | IV. 42 | ·::-1= | | | | 5 Packaging 1 Nothe | r Packaging | |
| € ETCHLAGO | | State - * ** | Zip_O_O | 352 | | Dangerous | Goods cannot be shippe | d in FedEx packaging. |
| Your Internal Billing Reference Information | R16H720 | 500 | | | | Special Handling Dangerous Goods as per attached Shipper's Declaration | Dangerous Go | oods Shipper's Cargo Aircraft ot required CA Only |
| To ORLETTE JOHNSON | | 0 | hone (610 |) 28A_1 | 3012 | | 9. UN 1845 (H | x kg 504 |
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| (Cali for delivery schedule) | See back for detaile | d descriptions of fi age 1 of 1 | | | impleted and si | igned copies of this Declara | tion must be her | nded to the operator. |
| TRANSPORT DETAILS | 81 | - 10 | | WARA Failure | | ll respects with the applica | ble Dangerous G | oods Regulations may be in |
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Emergency Response Guide 171

171 Substances (Low to Moderate Hazard)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- * Some may burn but none ignite readily.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Containers may explode when heated.
- Some may be transported hot.

HEALTH

- Inhalation of material may be harmful.
- Contact may cause burns to skin and eyes.
- Inhalation of Asbestos dust may have a damaging effect on the lungs.
- * Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- * CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Isolate spill or leak area immediately for at least 10 to 25 meters (30 to 80 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Fire

If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

Dry chemical, CO2, water spray or regular foam.

Large Fires

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Do not scatter spilled material with high pressure water streams.
- Dike fire-control water for later disposal.

Fire involving Tanks

- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- * Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent dust cloud.
- Avoid inhalation of asbestos dust.

Small Dry Spills

 With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

Small Spills

 Take up with sand or other noncombustible absorbent material and place into containers for later disposal.

Large Spills

- Dike far ahead of liquid spill for later disposal.
- Cover powder spill with plastic sheet or tarp to minimize spreading.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- * Move victim to fresh air.
- * Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- * Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- * Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POLYCHLORINATED BIPHENYLS, SOLID, 9, UN2315, PGII